

CLAIMS

- Sub E3
- 10 1. A stator for an electrical induction machine, comprising an even number n of stator sections (2, 3) at different axial positions, each section having a plurality of circumferentially separated, radially extending teeth (6, 7) and each tooth having a single winding, wherein the stator sections are mutually phase shifted by substantially $360^\circ/n$ electrical \pm an angle related to skew, and then $n/2$ of the stator sections have their electrical supplies shifted by 180° electrical so as to reduce the effect of other harmonics than the working harmonics.
- 15 2. A stator as claimed in claim 1, wherein the even number n is 2, the stator sections (2, 3) being physically phase shifted by substantially 180° electrical \pm an angle related to skew, and the two stator sections have their electrical supplies shifted by 180° electrical.
- 20 3. A stator as claimed in claim 1 or 2, wherein each stator section (2, 3) has the same number of teeth (6, 7).
- 25 4. A stator as claimed in ~~any one of claims 1-3~~ ^{claim 1}, wherein each stator section (2, 3), at least partly, is made of a magnetic powder.
5. A stator as claimed in claim 4, wherein each stator section (2, 3) is made of several separate units (8, 9), each unit comprising a tooth (6, 7) and an adjoining part of a yoke (4, 5) of the stator (1).
- 30 6. A stator as claimed in claim 5, wherein each unit (8, 9) also comprises one of said single windings.
7. A stator as claimed in claim 5 or 6, wherein the adjoining parts of the yoke (4, 5) extend axially past the teeth (6, 7) at least at one of the axial sides thereof.
- 35 8. A stator as claimed in ~~any one of claims 1-7~~ ^{claim 1}, wherein the tips (11) of the teeth (6, 7) extend axially

past the main part of the teeth at least at one of the axial sides thereof.

E3
Cont
A 9. A stator as claimed in ~~any one of claims 1-8,~~ ^{claim 1}
wherein each tooth (6, 7) has a rounded profile.)

5 A 10. A stator as claimed in ~~any one of claims 1-9,~~ ^{claim 1}
wherein the stator sections (2, 3) are separated axially.

S3
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10 11. An electrical induction machine having a rotor and a stator, wherein the stator comprises an even number *n* of stator sections (2, 3) at different axial positions, each section having a plurality of circumferentially separated, radially extending teeth (6, 7) and each tooth having a single winding, wherein the stator sections are mutually phase shifted by substantially $360^\circ/n$ electrical \pm an angle related to skew, and $n/2$ of the stator
15 sections have their electrical supplies shifted by 180° electrical so as to reduce the effect of other harmonics than the working harmonics.

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